

09/890363

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PTO/SB/21 (09-04)

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TRANSMITTAL  
FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission 19

Application Number 09/890,363 (Patent No. 7,090,190)

Filing Date January 27, 2000 (Issued August 29, 2006)

First Named Inventor David Lawrence Becker

Art Unit 1635

Examiner Name MCGARRY, SEAN

Attorney Docket Number E3697-00005

Certificate

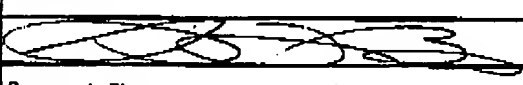
FEB 26 2007

of Correction

## ENCLOSURES (Check all that apply)

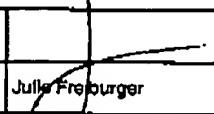
<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to TC
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Change of Correspondence Address	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	Request for Certificate of Correction (2 pg.); and
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<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> CD, Number of CD(s) _____	Copy of Amendment filed 4/21/06 (15 pgs.)
<input type="checkbox"/> Reply to Missing Parts/Incomplete Application	<input type="checkbox"/> Landscape Table on CD	
<input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	Remarks _____	

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Duane Morris LLP		
Signature			
Printed name	Suzanne L. Biggs		
Date	February 21, 2007	Reg. No.	30,158

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Signature			
Typed or printed name	Julie Freiburger	Date	February 21, 2007

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEE3 OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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DM2/803689v1

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Attorney Docket No. E3697-00005

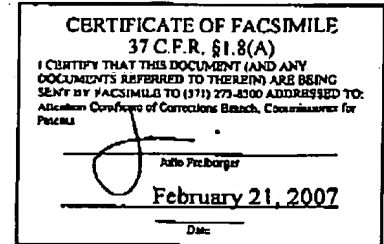
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

U.S. Patent No.: 7,098,190 B1 )  
)  
Issued: August 29, 2006 )  
)  
Application No.: 09/890,363 )  
)  
Filed: January 27, 2000 )  
)  
Inventors: Becker et al. )  
)  
For: FORMULATIONS )  
COMPRISING ANTISENSE )  
NUCLEOTIDES TO )  
CONNEXINS )

Confirmation No.: 1593

Group Art Unit: 1635

Primary Examiner: MCGARRY, SEAN



Certificate of Corrections Branch  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

REQUEST FOR CERTIFICATE OF CORRECTION

This Request for Certificate of Correction is being filed pursuant to 37 C.F.R. 1.322(a) and 1.323 to correct errors that were partially the fault of the applicants. A fee of \$100 is believed due in connection with the filing of this paper. However, if any other fees are due, please charge any such fees or credit any overpayments to Deposit Account No. 04-1679.

The subject patent, U.S. Patent 7,098,190 B1 was printed with errors as noted on the attached Certificate of Correction. Applicants respectfully request that the Certificate be entered as requested.

**In the Specification:**

Column 10, line 29: Please insert Table 1: The Effect on Limb Development of ODN Application Between Stages 8 & 14 of Chick Embryo Development – before the word “Antisense”.

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003/019

Attorney Docket No. E3697-00005

## In the Claims:

Column 27, Line 32, delete "a" before the word "connexin".  
Column 27, Line 39, delete "a" before the word "connexin".  
Column 29, Line 7, delete "any of" before the word "claim".  
Column 29, Line 9, delete "any of" before the word "claim".  
Column 29, Line 11, delete "any of" before the word "claim".  
Column 29, Line 13, delete "any of" before the word "claim".  
Column 29, Line 15, delete "any of" before the word "claim".  
Column 29, Line 17, delete "any of" before the word "claim".  
Column 29, Line 19, delete "any of" before the word "claim".  
Column 29, Line 21, delete "any of" before the word "claim".  
Column 29, Line 23, delete "any of" before the word "claim".  
Column 29, Line 25, delete "any of" before the word "claim".


## REMARKS

The subject patent, U.S. Patent 7,098,190 B1 was printed with errors as noted on the attached Certificate of Correction. Applicants respectfully request that the Certificate be entered as requested.

In the Specification, the caption "Table 1" was omitted in the issued patent.

An amendment pursuant to 37 CFR 1.312 was filed on April 21, 2006. Entry of the Amendment in its entirety was acknowledged by the PTO in a communication dated May 25, 2006. In the Amendment filed April 21, 2006 the term "any of" was deleted in claims 81 through 90 and 92 through 101. A copy of the Amendment as filed on April 21, 2006, the self-addressed postcard stamped by the PTO and PTO Form 271 acknowledging entry thereof mailed on May 25, 2006 are enclosed herewith as evidence.

Respectfully submitted,

  
Suzanne L. Biggs  
Reg. No. 30,158

Date: February 21, 2007

DMT803669.1

FEB 26 2007

PTO/SB/44 (04-05)

Approved for use through 04/30/2007. OMB 0851-0033

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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(Also Form PTO-1050)**UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION**Page 1 of 1

PATENT NO. : 7,098,190 B1

APPLICATION NO.: 09/890,190

ISSUE DATE : August 29, 2006

INVENTOR(S) : Becker et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 10, Line 29, insert -- Table 1: The Effect on Limb Development of ODN Application Between Stages 8 & 14 of Chick Embryo Development -- before the word "Antisense".

Column 27, Line 32, delete "a" before the word "connexin".

Column 27, Line 39, delete "a" before the word "connexin".

Column 29, Line 7, delete "any of" before the word "claim".

Column 29, Line 9, delete "any of" before the word "claim".

Column 29, Line 11, delete "any of" before the word "claim".

Column 29, Line 13, delete "any of" before the word "claim".

Column 29, Line 15, delete "any of" before the word "claim".

Column 29, Line 17, delete "any of" before the word "claim".

Column 29, Line 19, delete "any of" before the word "claim".

Column 29, Line 21, delete "any of" before the word "claim".

Column 29, Line 23, delete "any of" before the word "claim".

Column 29, Line 25, delete "any of" before the word "claim".

**MAILING ADDRESS OF SENDER (Please do not use customer number below):**

Duane Morris LLP  
101 West Broadway, Suite 900  
San Diego, CA 92101

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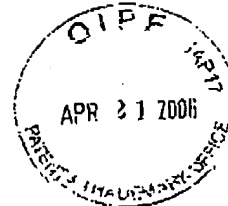
PAGE 4/19 \* RCVD AT 2/21/2007 8:19:37 PM [Eastern Standard Time] \* SVR:USPTO-EFXRF-1/7 \* DNIS:2738300 \* CSID:6197442201 \* DURATION (mm:ss):05:18

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IN THE UNITED STATES PATENT AND  
TRADEMARK OFFICE

In re application of: Becker et al.  
Application No.: 09/890,363  
Filed: November 2, 2001  
Docket No.: E3697-00005  
Title: FORMULATIONS COMPRISING ANTISENSE  
NUCLEOTIDES TO CONNEXINS  
Express Mail Label No. EV 678346071 US



The Patent Office acknowledges and has stamped hereon the date of receipt of the following items: Transmittal (1 page); Amendment Under 37 §1.312 (12 pages); Copy of Filing Receipt (2 pages); Photocopy of certified NZ priority document NZ500190 (52 pages); and, Copy of 1999 *Dev. Gen.* publication (10 pages)

Dated: April 21, 2006

DMZ639837.1

APR 26 2007

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Becker et al.  
Application No.: 09/890,363  
Filed: November 2, 2001  
Docket No.: E3697-00005  
Title: FORMULATIONS COMPRISING ANTISENSE  
NUCLEOTIDES TO CONNEXINS  
Express Mail Label No. EV 678346071 US

The Patent Office acknowledges and has stamped hereon the date of receipt of the following items: Transmittal (1 page); Amendment Under 37 §1.312 (12 pages); Copy of Filing Receipt (2 pages); Photocopy of certified NZ priority document NZ500190 (52 pages); and, Copy of 1999 Dev. Gen. publication (10 pages)

Dated: April 21, 2006

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<b>TRANSMITTAL FORM</b>  (To be used for all correspondence after initial filing)	Application Number	09/890,363	
	Filing Date	November 2, 2001	
	First Named Inventor	Becker et al.	
	Art Unit	1635	
	Examiner Name	MCGARRY, SEAN	
Total Number of Pages in This Submission	77	Attorney Docket Number	(NEW) E3897-00008

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment Under 37 C.F.R. 1.312 <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input checked="" type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Copy of Certified Priority Document NZ 500180 (52 pages); Copy of Filing Receipt (2 pages); Copy of 1999 Dev. Gen. Publication (10 pages); and, 1 Return Postcard
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	Dvane Morris LLP		
Signature			
Printed name	Suzanne L. Biggs		
Date	April 21, 2008	Reg. No.	30,158

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Signature			
Typed or printed name	Julie Frelburger	Date	April 21, 2008

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Attorney Docket No.: E3697-00005

## UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Application of

David L. Becker et al.

Serial No.: 09/890,363

Filed: November 2, 2001

For: FORMULATIONS COMPRISING  
ANTISENSE NUCLEOTIDES TO  
CONNEXINS

Examiner: McGarry, Sean

Art Unit: 1635

Confirmation No.: 1593

Customer No.: 53897

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4/21/06  
Dated

Julie Freiburger

Mail Stop Issue Fee  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

AMENDMENT UNDER 37 CFR §1.312

Dear Sir:

Pursuant to 37 CFR §1.312, Applicants respectfully request entry of the following amendments and that the Remarks be considered in connection with the instant application.

No fee is believed due in connection with this submission, however, if any fee is due, the Commissioner is hereby authorized to charge the requisite fee, or any fees that may be due in connection with this and the attached papers, or with this application during its entire pendency, or to credit any overpayment, to Deposit Account No. 04-1679.

Amendments to the Specification being on page 2 of this paper.

Amendments to the Claims begin on page 4 of this paper.

Remarks begin on page 11 of this paper.

FEB 26 2007



Attorney Docket No.: E3697-00005

**In the Specification: (page and line numbers are based on the PCT specification)**

**On page 1, please add the following paragraph as the first paragraph of the specification:**

This application is a U.S. national stage application of International Application No. PCT/GB00/00238, filed January 27, 2000 (published as WO00/44409 on August 3, 2000) and claims the benefit of priority to NZ 333928 (filed January 27, 1999) and NZ 500190 (filed October 7, 1999). The contents of each of which are hereby incorporated in their entireties.

**Please replace the paragraph on page 17, lines 14-18 with the following amended paragraph:**

All ODN's were applied at 0.5-1.0 ~~[[mM]]~~  $\mu$ M final concentration following dose dependent analysis during preliminary experiments covering a range of concentrations from 0.05 ~~[[mM]]~~  $\mu$ M to 50 ~~[[mM]]~~  $\mu$ M. General toxicity effects only became apparent with ODN concentrations greater than 10 ~~[[mM]]~~  $\mu$ M. ODN gel mixtures were prepared from concentrated stock solutions stored at -80 °C.

**Please replace the paragraph on page 20, lines 9-19 with the following amended paragraph:**

#### **Oligodeoxynucleotides (ODN's)**

Unmodified ODN's were delivered in Pluronic F-127 gel (BASF, Germany) in phosphate buffered saline (PBS). Pluronic gel is liquid at low temperatures (0-4 °C) and sets at physiological temperatures, and is also a mild surfactant. Unmodified ODN's normally have a half life of approximately 20 min in cells (Wagner, 1994) but the Pluronic gel loading method provides a continual diffusion source, the gel acting as a reservoir (Becker et al., (1999)). ODN's specific to connexin 43 were applied, or control random ODN's of similar base composition, at ~~[[2mM]]~~ 2  $\mu$ M final concentration. Gel only controls were also carried out. ODN's were 30 mers analysed to show that no hairpin looping or homodimerisation should occur.

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Attorney Docket No.: E3697-00005

**Please replace the paragraph on page 27, lines 10-24 with the following amended paragraph:**

Wistar rats were anaesthetised and their spinal cord exposed. A standard hemisection lesion was then made in the cord and 5 ml of chilled Pluronic gel, containing either antisense or sense ODN's to connexin 43 ~~[[ (5mM) ]]~~ (5  $\mu$ M) was placed in the lesion. Applications were made blind. The exposed cord was then recovered and the rat returned to its cage. Some animals were sacrificed at 24 hours whereas others were maintained for 12 days and two months in order to determine the extent of neuronal regeneration and the final size of the lesion. For axonal regeneration studies the rats were anaesthetised and their axons severed prior to their entry site to the spinal cord. A pellet of Horse radish peroxidase (HRP) was placed in the cut in order to retrogradely label the axons over a 24 hour period. Next day the rats were sacrificed and their spinal cords removed and fixed in 2% paraformaldehyde. Cords were then processed for cryosectioning and serial longitudinal 8 mm sections were taken through the cords. Sections were then immunostained for either connexins or GFAP along with propidium iodide as a nuclear marker, or processed to reveal the HRP.

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Attorney Docket No.: E3697-00005

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listing of claims in the application.

*No Admission.* The claims presented below are labeled pursuant to the request of the Patent and Trademark Office for convenience in examination. The cancellation of a claim or reference to a claim as "currently amended" is not an admission that the claim was altered for any reason related to patentability. None have been so altered.

1-15. (Cancelled).

16. (Previously Presented) A method of treating a human subject having a wound, which comprises administering to the wound a connexin 43 anti-sense polynucleotide, whereby connexin 43 protein expression is downregulated.

17. (Previously Presented) A method of reducing cell death resulting from a neuronal insult to a human subject, which comprises administering to the site of the neuronal insult a connexin 43 anti-sense polynucleotide, whereby connexin 43 expression is downregulated.

18. (Previously Presented) A method according to claim 17 wherein the neuronal insult is to the brain, spinal cord or optic nerve.

19. (Previously Presented) A method according to claim 17 in which said anti-sense polynucleotide is administered in a sufficient amount to downregulate connexin 43 expression for at least 24 hours post-administration.

20. (Previously Presented) A method of promoting wound healing in a human which comprises the step of administering to the wound an amount of a connexin 43 anti-sense polynucleotide effective to downregulate connexin 43 expression.

21. (Previously Presented) A method according to claim 16 or 20 in which the wound is the result of trauma.

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Attorney Docket No.: E3697-00005

22. (Original) A method according to claim 21 in which trauma is a burn.
23. (Previously Presented) A method according to claim 16 or 20 in which the wound is the result of a surgery.
24. (Previously Presented) A method of treating a human subject to reduce inflammation associated with a wound or associated with a tissue subjected to a physical trauma which comprises the step of administering to the wound or tissue an amount of a connexin 43 anti-sense polynucleotide effective to downregulate connexin 43 expression.
25. (Previously Presented) A method according to claim 24 in which the tissue subjected to physical trauma is selected from the group consisting of brain, spinal cord and optic nerve.
26. (Previously Presented) A method of decreasing scar formation following a wound to a human subject which comprises administering to the wound an amount of a connexin 43 anti-sense polynucleotide effective to downregulate a connexin 43 expression.
- 27-42. (Cancelled)
43. (Previously Presented) A method according to claim 16, wherein said anti-sense polynucleotide is an oligodeoxynucleotide.
44. (Previously Presented) A method according to any of claims 16, 17, 20, 24, or 26 wherein said connexin protein comprises the amino acid sequence coded for by SEQ ID NO. 12.
45. (Previously Presented) A method according to any of claims 16, 17, 20, 24, or 26 wherein said anti-sense polynucleotide is present in a composition a pharmaceutically acceptable carrier or vehicle.
46. (Previously Presented) A method according to claim 45, wherein said composition is suitable for topical administration.

FEB 26 2007

Attorney Docket No.: E3697-00005

47. (Previously Presented) A method according to claim 45, wherein said composition is formulated to provide sustained release of the antisense polynucleotide.

48. (Previously Presented) A method according to claim 45, wherein said composition is formulated to provide sustained release of the antisense polynucleotide over at least 24 hours.

49. (Previously Presented) A method according to claim 44, wherein the anti-sense polynucleotide is present in a composition comprising a pharmaceutically acceptable carrier or vehicle formulated for topical administration.

50. (Previously Presented) A method according to claim 44, wherein the anti-sense polynucleotide is in the form of an impregnated dressing.

51. (Previously Presented) A method according to claim 45, wherein the pharmaceutically acceptable carrier or vehicle is, or includes, a gel.

52. (Previously Presented) A method according to claim 51 in which the gel is a nonionic polyoxyethylene-polyoxypropylene copolymer gel.

53. (Previously Presented) A method according to claim 45, wherein the composition further includes a surfactant.

54. (Previously Presented) A method of decreasing cell death in a tissue of a mammal comprising contacting the cells with an effective amount of a connexin 43 antisense polynucleotide.

55. (Previously Presented) The method of claim 54, wherein said connexin 43 antisense polynucleotide is an oligodeoxynucleotide.

56. (Previously Presented) The method of claim 55, wherein said oligodeoxynucleotide is an unmodified phosphodiester oligomer.

57. (Previously Presented) The method of any of claims 16, 17, 20, 24, 26 or

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Attorney Docket No.: E3697-00005

54, wherein said connexin 43 antisense polynucleotide binds to at least a portion of a connexin 43 mRNA.

58. (Previously Presented) The method of claim 57, wherein said connexin 43 antisense polynucleotide is exactly complementary to at least a portion of said connexin 43 mRNA.

59. (Previously Presented) The method of claim 57, wherein said connexin 43 antisense polynucleotide is not exactly complementary to at least a portion of a connexin 43 mRNA.

60. (Previously Presented) The method of any of claims 16, 17, 20, 24, 26 or 54, wherein said connexin 43 antisense polynucleotide is about 12 to about 40 nucleotides in length.

61. (Previously Presented) The method of any of claims 16, 17, 20, 24, 26 or 54, wherein said connexin 43 antisense polynucleotide is about 30 nucleotides in length.

62. (Previously Presented) The method of any of claims 16, 17, 20, 24, 26 or 54, wherein said connexin 43 antisense polynucleotide comprises SEQ ID NO: 1.

63. (Previously Presented) The method of any of claims 16, 17, 20, 24, 26 or 54, wherein said connexin 43 antisense polynucleotide comprises SEQ ID NO: 2.

64. (Previously Presented) The method of any of claims 16, 17, 20, 24, 26 or 54, wherein said connexin 43 antisense polynucleotide comprises SEQ ID NO: 3.

65. (Previously Presented) The method of claim 54, wherein said connexin 43 is a human connexin 43.

66. (Previously Presented) The method of claim 54, wherein said mammal is a human.

67. (Previously Presented) The method of claim 54, wherein said tissue is skin.

68. (Previously Presented) The method of claim 24 or 54, wherein said tissue is neural tissue.

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69. (Previously Presented) The method of claim 24 or 54, wherein said tissue is brain.
70. (Previously Presented) The method of claim 24 or 54, wherein said tissue is spinal cord.
71. (Previously Presented) The method of claim 24 or 54, wherein said tissue is connective tissue.
72. (Previously Presented) The method of any of claims 54-56, 65, 66 or 67, wherein said connexin 43 antisense polynucleotide is administered to a wound.
73. (Previously Presented) The method of claim 72, wherein said wound is a surgical wound.
74. (Previously Presented) The method of claim 72, wherein said wound is a burn.
75. (Previously Presented) The method of any of claims 54-56, 65, 66 or 67, wherein said connexin 43 antisense polynucleotide is administered to a site of inflammation.
76. (Previously Presented) The method of any of claims 54-56, 65, 66 or 67, wherein said connexin 43 antisense polynucleotide is disposed in a topical formulation.
77. (Previously Presented) The method of claim 76, wherein said topical formulation comprises a gel.
78. (Previously Presented) The method of claim 77, wherein said gel is a pluronic gel.
79. (Previously Presented) The method of any of claims 54-56, 65, 66 or 67, wherein said connexin 43 antisense polynucleotide is administered by syringe.
80. (Previously Presented) The method of any of claims 54-56, 58, 59 or 65-67, wherein said connexin 43 antisense polynucleotide is administered as a gel.
81. (Currently amended) The method of any of claim 57, wherein said connexin 43 antisense polynucleotide is administered as a gel.

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82. (Currently amended) The method of ~~any of~~ claim 60, wherein said connexin 43 antisense polynucleotide is administered as a gel.

83. (Currently amended) The method of ~~any of~~ claim 61, wherein said connexin 43 antisense polynucleotide is administered as a gel.

84. (Currently amended) The method of ~~any of~~ claim 62, wherein said connexin 43 antisense polynucleotide is administered as a gel.

85. (Currently amended) The method of ~~any of~~ claim 63, wherein said connexin 43 antisense polynucleotide is administered as a gel.

86. (Currently amended) The method of ~~any of~~ claim 64, wherein said connexin 43 antisense polynucleotide is administered as a gel.

87. (Currently amended) The method of ~~any of~~ claim 68, wherein said connexin 43 antisense polynucleotide is administered as a gel.

88. (Currently amended) The method of ~~any of~~ claim 69, wherein said connexin 43 antisense polynucleotide is administered as a gel.

89. (Currently amended) The method of ~~any of~~ claim 70, wherein said connexin 43 antisense polynucleotide is administered as a gel.

90. (Currently amended) The method of ~~any of~~ claim 71, wherein said connexin 43 antisense polynucleotide is administered as a gel.

91. (Previously Presented) The method of any of claims 54-56, 58, 59 or 65-67, wherein said connexin 43 antisense polynucleotide is administered as a dressing.

92. (Currently amended) The method of ~~any of~~ claim 57, wherein said connexin 43 antisense polynucleotide is administered as a dressing.

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93. (Currently amended) The method of ~~any of~~ claim 60, wherein said connexin 43 antisense polynucleotide is administered as a dressing.

94. (Currently amended) The method of ~~any of~~ claim 61, wherein said connexin 43 antisense polynucleotide is administered as a dressing.

95. (Currently amended) The method of ~~any of~~ claim 62, wherein said connexin 43 antisense polynucleotide is administered as a dressing.

96. (Currently amended) The method of ~~any of~~ claim 63, wherein said connexin 43 antisense polynucleotide is administered as a dressing.

97. (Currently amended) The method of ~~any of~~ claim 64, wherein said connexin 43 antisense polynucleotide is administered as a dressing.

98. (Currently amended) The method of ~~any of~~ claim 68, wherein said connexin 43 antisense polynucleotide is administered as a dressing.

99. (Currently amended) The method of ~~any of~~ claim 69, wherein said connexin 43 antisense polynucleotide is administered as a dressing.

100. (Currently amended) The method of ~~any of~~ claim 70, wherein said connexin 43 antisense polynucleotide is administered as a dressing.

101. (Currently amended) The method of ~~any of~~ claim 71, wherein said connexin 43 antisense polynucleotide is administered as a dressing.

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REMARKS

Applicants respectfully request entry of the amendments presented in this submission and also that these Remarks be considered. Applicants submit that these amendments are in compliance with 37 C.F.R. §1.312 and represent amendments which may be entered on recommendation of the Primary Examiner.

No fee is believed due in connection with this submission, however, if any fee is due, the Commissioner is hereby authorized to charge the requisite fee, or any fees that may be due in connection with this and the attached papers, or with this application during its entire pendency, or to credit any overpayment, to Deposit Account No. 04-1679.

Claims 16 to 26 and 43 to 101 were allowed as set forth in the Notice of Allowance mailed on February 21, 2006. Claims 81 to 90 and 92 to 101 are amended herein to correct minor errors and to clearly set forth claim dependency. Support for the amendments to the claims is found throughout the specification and claims as originally filed. Applicant submits that these amendments present no issue of new matter and would require no additional search.

The Specification has been amended to insert a paragraph on the first page which sets forth its priority claims and to correct clerical and other minor errors and to clearly set forth unit concentration symbols on pages 17, 20 and 27.

The present application is a national stage application of PCT/GB00/00238 (WO00/44409), having an international filing date of January 27, 2000, and claiming the benefit of priority to the following New Zealand patent applications: NZ 333928 and NZ 500190. Certified priority documents were timely deposited with the International Bureau during the international phase of the application and were later formally transmitted to the USPTO in accordance with requirements for entry into the National Stage pursuant to 35 U.S.C. §371. Applicants' claims of priority were acknowledged in the Filing Receipt from the USPTO mailed January 8, 2002. A copy of the Filing Receipt is attached to this submission. Applicants note that the foreign priority claim is properly acknowledged by the USPTO according to entries on PAIR.

In the Specification, on page 1, a new paragraph is added as the (new) first paragraph which sets forth the relationship of the present application to the New Zealand applications from which it claims priority.

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The paragraphs at page 17, lines 14 to 18; page 20, lines 9 to 19; and page 27, lines 10 to 24 have been amended to correct minor errors in the unit concentration symbols, where in certain instances "mM" was used instead of " $\mu$ M". Applicants note that one of skill in the art would have recognized this. In particular, on pages 17, 20, and 27 of the published international application, the specification contains the "mM" units where " $\mu$ M" were clearly intended and is the appropriate unit. Applicants note further that in priority document NZ500190, the " $\mu$ M" symbol was used. A photocopy of the certified NZ priority document (NZ500190) is enclosed herein for the Examiner's convenience.

The clarifications on pages 17, 20, and 27 also find support on pages 11, 13, and 20 of the NZ 500190 priority document respectively as well in a publication (*Developmental Genetics* 24: 33-42; 1999) published after filing of NZ500190 and which includes experiments which are substantially the same. A copy of the 1999 *Dev. Gen.* publication is enclosed herewith for the Examiner's convenience.

Applicants submit that the amendments to the specification are directed to changes that are in the nature of formal matters and, thus, represent amendments which may be properly presented under 37 C.F.R. § 1.312.

Applicants respectfully request that the present amendments be entered and the above Remarks be considered.

If the Examiner believes that a telephonic interview would expedite prosecution of this application, he is encouraged to telephone the undersigned applicant's attorney.

Respectfully submitted,

By: 

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